Docket No. DEAV2003-0029 US NP Application No. 10/829,064

AMENDMENT TO THE CLAIMS

This listing of claims will replace all prior versions, and listings of claims in the application.

1. (Original) A compound of formula I,

wherein:

A is CR6 or N:

B is CR⁷ or N, provided that A and B are not simultaneously N;

R¹ is (C₁-C₁₀)-alkyl, (C₃-C₈)-cycloalkyl, (C₂-C₁₀)-alkenyl or (C₂-C₁₀)-alkynyl, each of which is unsubstituted or substituted by one or more identical or different substitutents selected from the group consisting of halogen, cyano, (C₃-C₈)-cycloalkyl, phenyl, biphenylyl, naphthyl, indanyl and heteroaryl, wherein the phenyl, biphenylyl, naphthyl, indanyl and heteroaryl are each, independently, unsubstituted or substituted by one or more identical or different substituents selected from the group consisting of halogen, cyano, (C₁-C₆)-alkyl, trifluoromethyl, (C₁-C₆)-alkoxy and trifluoromethoxy;

R² is hydrogen, (C₁-C₄)-alkyl, trifluoromethyl, -(CH₂)_a-(C₃-C₆)-cycloalkyl, -(CH₂)_a-phenyl, -(CH₂)_a-imidazolyl or -(CH₂)_a-pyridinyl, wherein the phenyl, imidazolyl and pyridinyl are each, independently, unsubstituted or substituted by one or more identical or different substituents selected from the group consisting of halogen, cyano, (C₁-C₆)-alkyl, trifluoromethyl, (C₁-C₆)-alkoxy and trifluoromethoxy;

a is 0, 1 or 2;

 R^3 is -(CH₂)_b-phenyl, -(CH₂)_b-imidazolyl, -(CH₂)_b-triazolyl, -(CH₂)_b-Het or -(CH₂)_b-pyridinyl, wherein the phenyl, imidazolyl, triazolyl and pyridinyl are each, independently, unsubstituted or substituted by one or more identical or different substituents selected from the group consisting of halogen, cyano, (C₁-C₆)-alkyl, trifluoromethyl, (C₁-C₆)-alkoxy and trifluoromethoxy;

b is 1, 2, 3 or 4;

 R^4 , R^5 , R^6 and R^7 are each, independently, hydrogen, (C_1-C_4) -alkyl, trifluoromethyl, (C_1-C_4) -alkoxy, trifluoromethoxy, halogen, nitro, cyano, -CO- R^{10} , -NR $^8R^9$, -NH-CO- (C_1-C_4) -alkyl, -SO₂-NR $^8R^9$, -SO₂- (C_1-C_4) -alkyl or -SO₂- $(CH_2)_c$ -phenyl, wherein the phenyl is unsubstituted or substituted by one or more identical or different substituents selected from the group consisting of halogen, cyano, (C_1-C_6) -alkyl, trifluoromethyl, (C_1-C_6) -alkoxy and trifluoromethoxy;

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c is 0, 1 or 2;

R8 and R9 are each, independently, hydrogen or (C1-C4)-alkyl;

 R^{10} is hydroxy, (C_1-C_4) -alkoxy or $-NR^8R^9$;

Het is a saturated 5-membered or 6-membered monocyclic heterocycle containing a ring nitrogen atom via which it is bonded, wherein the monocyclic heterocycle optionally contains a further ring heteroatom selected from the group consisting of N, O and S, and is unsubstituted or substituted by one or more identical or different substituents selected from the group consisting of (C_1-C_4) -alkyl and $-(CH_2)_d$ -phenyl, wherein the phenyl is unsubstituted or substituted by one or more identical or different substitutents selected from the group consisting of halogen, cyano, (C_1-C_6) -alkyl, trifluoromethyl, (C_1-C_6) -alkoxy and trifluoromethoxy;

d is 0, 1 or 2;

and

heteroaryl is an aromatic 5-membered to 10-membered, monocyclic or bicyclic heterocycle containing 1, 2, 3 or 4 identical or different ring heteroatoms selected from the group consisting of N, O and S; or a stereoisomer or a mixture of stereoisomers thereof in any ratio, or a physiologically acceptable salt thereof:

provided that the compound of formula I is not the compound wherein

A is CH,

B is CH,

R¹ is methyl,

R² is methyl,

R3 is unsubstituted benzyl,

R4 is hydrogen, and

R⁵ is hydrogen.

2. (Previously presented) The compound according to claim 1; wherein:

A is CR⁶ or N;

B is CR⁷ or N, provided that A and B are not simultaneously N;

 R^1 is (C_1-C_6) -alkyl, unsubstituted or substituted by one or more identical or different substituents selected from the group consisting of (C_3-C_6) -cycloalkyl, phenyl, biphenylyl, naphthyl, indanyl, thienyl and pyridinyl, wherein the phenyl, biphenylyl, naphthyl, indanyl, thienyl and pyridinyl are each, independently, unsubstituted or substituted by one or more identical or different substituents selected from the group consisting of fluorine, chlorine, bromine, cyano, (C_1-C_4) -alkyl, trifluoromethyl, (C_1-C_4) -alkoxy and trifluoromethoxy;

R² is hydrogen, (C₁-C₄)-alkyl, trifluoromethyl, -(CH₂)₆-(C₃-C₆)-cycloalkyl, -(CH₂)₆-phenyl, -(CH₂)₆-imidazolyl or -(CH₂)₆-pyridinyl, wherein the phenyl, imidazolyl and pyridinyl are each, independently, unsubstituted or substituted by one or more identical or different substituents selected

from the group consisting of fluorine, chlorine, bromine, cyano, (C_1-C_4) -alkyl, trifluoromethyl, (C_1-C_4) -alkoxy and trifluoromethoxy;

a is 0 or 1;

 R^3 is -(CH₂)_b-phenyl, -(CH₂)_b-imidazolyl, -(CH₂)_b-triazolyl, -(CH₂)_b-Het or -(CH₂)_b-pyridinyl, wherein the phenyl, imidazoyl, triazolyl and pyridinyl are each, independently, unsubstituted or substituted by one or more identical or different substitutents selected from the group consisting of fluorine, chlorine, bromine, cyano, (C₁-C₄)-alkyl, trifluoromethyl, (C₁-C₄)-alkoxy and trifluoromethoxy;

b is 1, 2, 3 or 4;

 R^4 , R^5 , R^6 and R^7 are each, independently, hydrogen, (C_1-C_4) -falkyl, trifluoromethyl, methoxy, fluorine, chlorine, nitro, $-CO-R^{10}$, $-NR^5R^9$, -NH-CO-methyl, $-SO_2-NR^6R^9$, $-SO_2$ -methyl or $-SO_2-CH_2$ -phenyl, wherein the phenyl is unsubstituted or substituted by one or more identical or different substituents selected from the group consisting of fluorine, chlorine, bromine, cyano, (C_1-C_4) -alkyl, trifluoromethyl, (C_1-C_4) -alkoxy and trifluoromethoxy;

R8 and R9 are each, independently, hydrogen or methyl;

R¹⁰ is hydroxy, (C₁-C₃)-alkoxy or -NR⁸R⁹,

Het is a saturated 5-membered or 6-membered monocyclic heterocycle containing a ring nitrogen atom via which it is bonded, wherein the monocyclic heterocycle optionally contains a further ring heteroatom selected from the group consisting of N, O and S, and is unsubstituted or substituted by one or more identical or different substituents selected from the group consisting of (C_1-C_4) -alkyl and $-(CH_2)_d$ -phenyl, wherein the phenyl is unsubstituted or substituted by one or more identical or different substitutents selected from the group consisting of fluorine, chlorine, bromine, cyano, (C_1-C_4) -alkyl, trifluoromethyl, (C_1-C_4) -alkoxy and trifluoromethoxy;

and

d is 0, 1 or 2,

or a stereoisomer or a mixture of stereoisomers thereof in any ratio, or a physiologically acceptable salt thereof.

3. (Previously presented) The compound according to claim 1, wherein:

A is CR6 or N:

B is CR7 or N, provided that A and B are not simultaneously N;

 R^1 is (C_1-C_6) -alkyl substituted by phenyl, wherein the phenyl is unsubstituted or substituted by one or more identical or different substituents selected from the group consisting of fluorine, chlorine, bromine, cyano, (C_1-C_4) -alkyl, trifluoromethyl, (C_1-C_4) -alkoxy and trifluoromethoxy;

 \mathbb{R}^2 is hydrogen, (\mathbb{C}_1 - \mathbb{C}_4)-alkyl, trifluoromethyl or (\mathbb{C}_3 - \mathbb{C}_6)-cycloalkyl;

 R^3 is -(CH₂)_b-imidazolyl, -(CH₂)_b-triazolyl or -(CH₂)_b-pyridinyl, wherein imidazolyl, triazolyl and pyridinyl are all unsubstituted or substituted by one or more identical or different (C₁-C₄)-alkyl substituents;

b is 1, 2, 3 or 4;

R⁴ and R⁷ are each, independently, hydrogen, (C₁-C₄)-alkyl, trifluoromethyl, methoxy, fluorine or chlorine;

R⁵ and R⁶ are each, independently, hydrogen, (C₁-C₄)-alkyl, trifluoromethyl, methoxy, fluorine, chlorine, nitro, -CO-R¹⁰, -NR⁸R⁹, -NH-CO-methyl, -SO₂-NR⁸R⁹, -SO₂-methyl or SO₂-CH₂-phenyl;

R⁸ and R⁹ are each, independently, hydrogen or methyl;

and

R¹⁰ is hydroxy, (C₁-C₂)-alkoxy or -NR⁸R⁹,

or a stereoisomer or a mixture of stereoisomers thereof in any ratio, or a physiologically acceptable salt thereof.

4. (Previously presented) The compound according to claim 1, wherein:

A is CR6; and

B is CR^7 ,

or a stereoisomer or a mixture of stereoisomers thereof in any ratio, or a physiologically acceptable salt thereof.

- 5. (Previously presented) The compound according to claim I, wherein one of A and B is nitrogen and the other is CR⁶ or CR⁷, or a stereoisomer or a mixture of stereoisomers thereof in any ratio, or a physiologically acceptable salt thereof.
- 6. (Previously presented) A process for the preparation of the compound of the formula I as defined in claim 1 or wherein one or more functional groups present therein can be in protected form or in the form of a precursor group, comprising treating a compound of the formula VI,

wherein A, B, R^1 , R^2 , R^3 , R^4 and R^5 are as defined in claim 1 or one or more functional groups present therein can be in protected form or in the form of a precursor group and R^{20} is (C_1-C_4) -alkyl, with an acid.

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- 7. (Previously presented) A pharmaceutical composition comprising a pharmaceutically effective amount of the compound according to claim 1 or a stereoisomer or a mixture of stereoisomers thereof in any ratio, or a physiologically acceptable salt thereof, and a pharmaceutically acceptable carrier.
- 8. (Cancelled)
- 9. (Previously presented) A method for treating a cardiovascular disease, stable or unstable angina pectoris, coronary heart disease, Prinzmetal angina, acute coronary syndrome, heart failure, myocardial infarction, stroke, endothelial dysfunction, atherosclerosis, endothel damage after PTCA, hypertension, essential hypertension, pulmonary hypertension, secondary hypertension, or renovascular hypertension, in a patient in need thereof, comptising administering to the patient a pharmaceutically effective amount of the compound according to claim 1, or a stereoisomer or a mixture of stereoisomers thereof in any ratio, or a physiologically acceptable salt thereof.

10 - 19. (Cancelled)